The Wisconsin Collaborative for Diabetes Quality Improvement Project 2004

COLLABORATION

Members represent over 50 diverse partners, including:

- health care and professional organizations, minority groups, public health, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry representatives, and consumers

Essential Diabetes Mellitus Care Guidelines - Wisconsin

Care is a partnership between the patient, family, and the diabetes team:
primary care provider, diabetes educator, nurse, dietitian, pharmacist and other specialists.

Abnormal physical or lab findings should result in appropriate interventions.
For particular details and references for each specific area, please refer to the supporting documents and implementation tools in the full-text guideline available via the Internet at **http://dhfs.wisconsin.gov/health/diabetes/DBMCGuidelns.htm** or call (608) 261-6871.

Concerns	Care/ Test	Frequency
General Recommendations	• Diabetes focused visit	*Type 1**: every 3 months *Type 2**: every 3 - 6 months * or > often based on control & complications
	• Review management plan, problems & goals	Each focused visit; revise as needed
	• Assess Physical Activity/Diet/Weight-BMI/Growth	Each focused visit
Glycemic Control	• Review meds & frequency of low blood sugar	Each focused visit
	• Self blood glucose monitoring, set & review goals	2 - 4 times/day or as recommended
	• HbA1C - [goal: < 7.0% or ≤ 1% above lab norms]	Every 3 - 6 months
Kidney Function	• Urine for microalbumin: [if **higher** than 30 mcg/mg creatinine or > 30 mg/24 hours, initiate ACE inhibitor (unless contraindicated)]	*Type 1:* Begin with puberty or after 5 yrs' duration, then yearly *Type 2:* At diagnosis, then yearly
	• Creatinine clearance & protein	Yearly, after microalbuminuria > 300mg/24 hour
	• Urinalysis	At diagnosis and as indicated
Cardiovascular	• Smoking status	Assess each visit; if smoker, counsel to stop; refer to cessation
	• Lipid profile Adult goals: Triglycerides <200 mg/dl HDL >45 mg/dl LDL <100 mg/dl (optimal goal)	*Children:* If > 2 years, after diagnosis & once glycemic control is established - repeat yearly if abnormal. Follow National Cholesterol Education Program (NCEP) guidelines. *Adults:* yearly. If abnormal, follow NCEP guidelines.
	• Blood pressure Goals [**adult:** < 130/80] [If evidence of diabetic nephropathy, goal <125/75] [**peds:** below 90% of ideal for age]	Each focused visit
	• Aspirin prophylaxis (unless contraindicated)	Age > 40 years
Eye Care	• Dilated eye exam by an ophthalmologist or optometrist	*Type 1*: If age >10 yrs, within 3-5 yrs of onset, then yearly *Type 2*: At diagnosis, then yearly or in alternate years at the discretion of the ophthalmologist or optometrist
Oral Health	• Oral health screening	Each focused visit; if dentate, refer for dental exam every 6 months (every 12 months if edentate)
Foot Care	• Inspect feet, with shoes and socks off	Each focused visit: stress need for daily self-exam
	• Comprehensive lower extremity exam	Yearly
Pregnancy	• Assess contraception/discuss family planning/assess medications for teratogenicity	At diagnosis & yearly during childbearing years
	• Preconception consult	3 - 4 months prior to conception
Self Management Training	By diabetes educator, preferably a CDE • Curriculum to include the 10 key areas of the national standards for diabetes self-management education	At diagnosis, then every 6 - 12 months or more as indicated by the patient's status
Medical Nutrition Therapy	By a registered dietitian, preferably a CDE • To include areas defined by the American Dietetic Association's Nutrition Practice Guidelines	*Type 1**: At diagnosis, then, if age <18 years, every 3 - 6 months. If age >18 years, every 6 - 12 months *Type 2**: At diagnosis, then every 6 - 12 months; * *Or* > often as indicated by the patient's status.
Immunizations	• Influenza	Per ACIP (Advisory Committee on Immunization Practices)
	• Pneumococcal	Per ACIP

These guidelines were developed to provide guidance to primary care providers and are not intended to replace or preclude clinical judgement.
Note: These are the 2001 Guidelines; they are currently in the process of being revised for 2004.

Mission

The Wisconsin Department of Health and Family Services, Diabetes Prevention and Control Program is dedicated to improving the health of people at risk for or with diabetes.

Forming and maintaining strong, active partnerships are key to achieving this mission.

The DPCP uses a statewide approach to improve the health of people at risk for or with diabetes by:

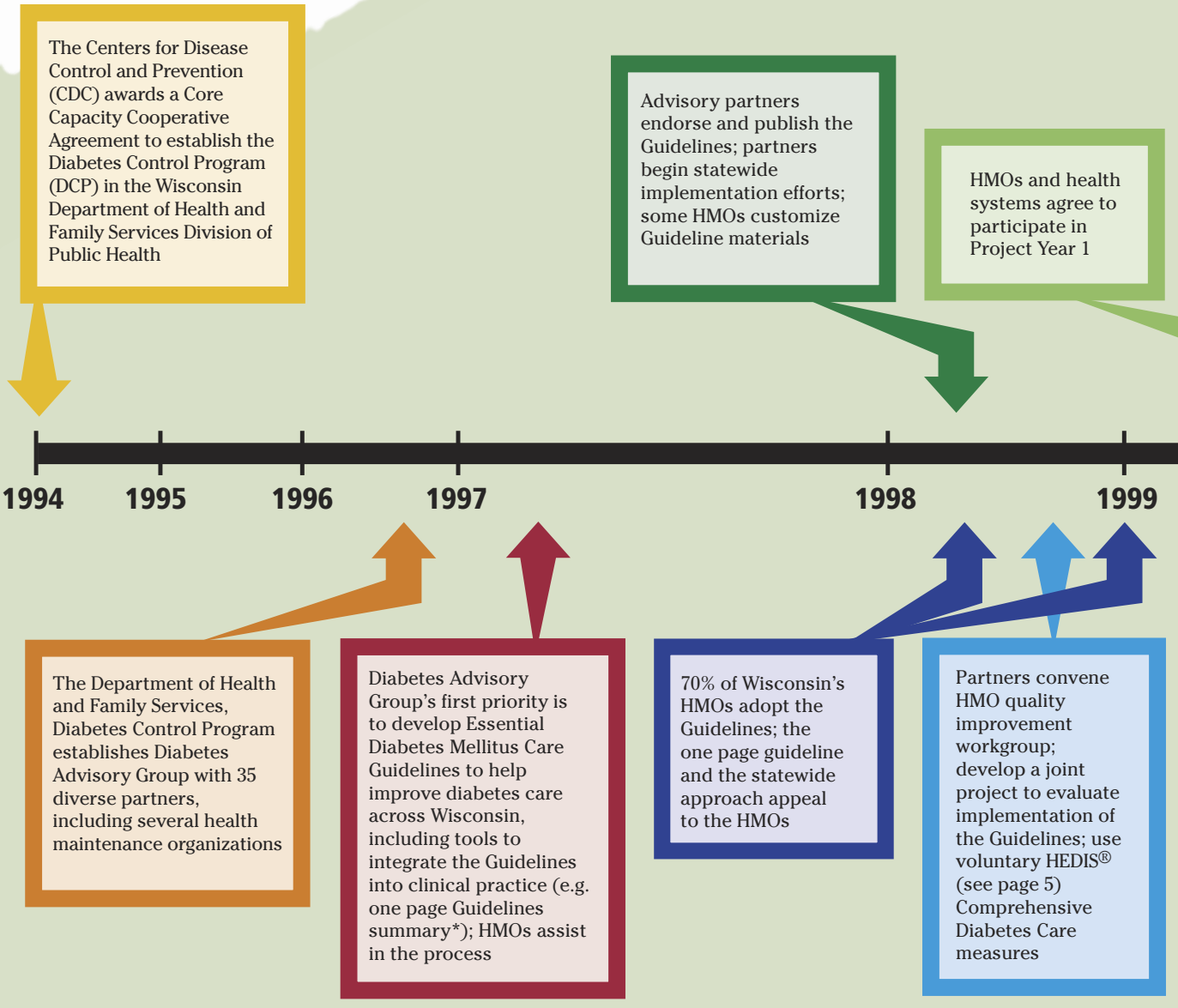
- Working with health systems
- Designing population-based community interventions and health communications
- Outreach to high risk populations
- Conducting surveillance and evaluation of the burden of diabetes
- Coordination of efforts through the Wisconsin Diabetes Advisory Group

The Wisconsin Diabetes Advisory Group, convened by the Department of Health and Family Services, Diabetes Prevention and Control Program, provides the foundation for active partnerships across the state. Members include over 50 diverse partners, including health care and professional organizations, minority groups, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry and public health representatives and consumers.

The Wisconsin Collaborative Diabetes Quality Improvement Project is a joint partnership. Members include the DPCP, the University of Wisconsin – Madison Department of Population Health Sciences, MetaStar (Wisconsin's Quality Improvement Organization), the Department of Health and Family Services Division of Health Care Financing (Medicaid Program), health maintenance organizations (HMOs), and other health systems. The Wisconsin Collaborative Diabetes Quality Improvement Project was established as a forum to:

- Evaluate implementation of the Essential Diabetes Mellitus Care Guidelines
- Share resources, population-based strategies and best practices
- Improve diabetes care through collaborative quality improvement initiatives

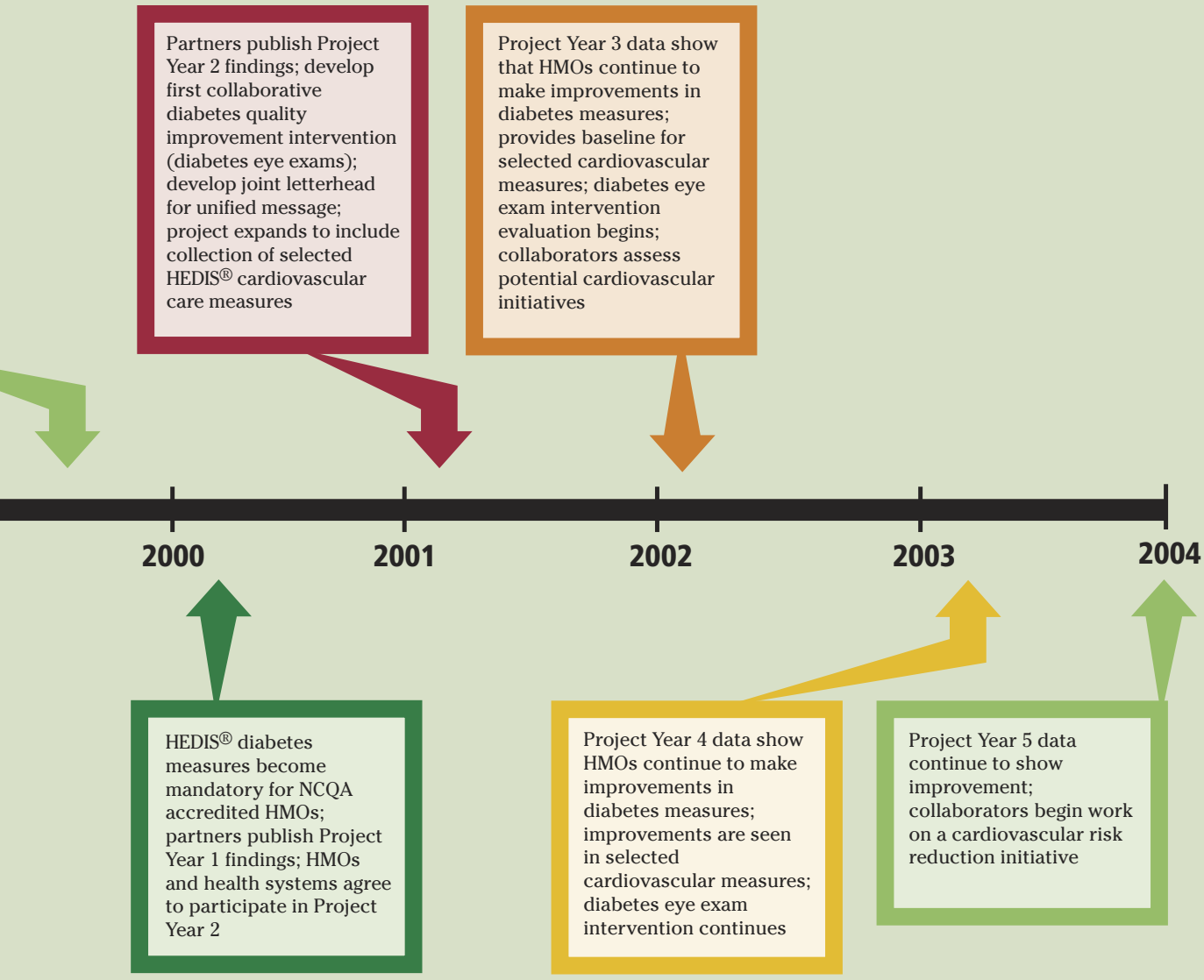
Collaboration is Key



* See inside front cover for one page version of Guidelines

"Not only is participation in the Collaborative an opportunity to share information about diabetes initiatives and compare outcomes data each year, we have progressed to a partnership that helps participants (including competitors) identify barriers to providing the best possible diabetes care in our individual networks. The end result is a cohesive approach to achieve our goal to improve diabetes care throughout Wisconsin."

Clinical Quality Improvement Nurse, Security Health Plan of Wisconsin

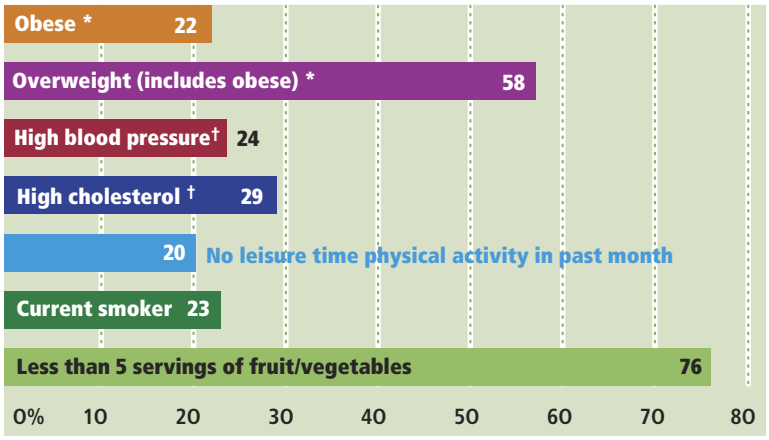


Diabetes Facts and Figures

"The Wisconsin Collaborative Project has heightened my awareness of the complexity of a chronic disease such as diabetes mellitus. This complexity has taken the collaborative group to a higher level of problem-solving which in return improves the outcome of this disease process, thereby benefiting everyone in the state of Wisconsin with diabetes mellitus. The state is fortunate to have such a diverse and forward thinking group of individuals."

Case Management Coordinator, MercyCare Insurance Company

FIGURE 1: Percent of Wisconsin Adults with Risk Factors Related to Diabetes - 2002



Source: Wisconsin Behavioral Risk Factor Survey, 2001-2002.
* Overweight is defined as Body Mass Index (BMI) ≥ 25.0 kg/m^2
* Obesity is defined as BMI ≥ 30.0 kg/m^2
† Data are from 2001

Serious: People with diabetes are at increased risk of numerous complications, including blindness, kidney disease, foot and leg amputations, and heart disease. Many adverse outcomes can be prevented by an aggressive program of early detection and appropriate treatment.

Common: Diabetes affects an estimated 330,000 people in Wisconsin, or 8% of the population. African American and American Indian populations often have the highest rates of diabetes.

Costly: The cost of diabetes in Wisconsin is staggering. In 1998 estimated direct costs for diabetes were $1.26 billion and estimated indirect costs were $1.54 billion, totaling $2.8 billion. (Source: The 2000 Burden of Diabaetes in Wisconsin)

Controllable: The Diabetes Prevention Program study results (August 2001) found that participants randomly assigned to intensive lifestyle intervention (30 minutes of physical activity a day and diet improvement) reduced their risk of developing type 2 diabetes by 58%. This is significant news and offers encouragement that reduction in risk factors with modest lifestyle changes may be the best defense against diabetes.

Collaboration is Key

What is the Project?

The Wisconsin Collaborative Diabetes Quality Improvement Project

Goal: *to improve the quality of diabetes care in Wisconsin's HMOs*

Three Project Components

Evaluate implementation of the Essential Diabetes Mellitus Care Guidelines

- Collaborators selected the Health Plan Employer Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures, developed by the National Committee for Quality Assurance (NCQA). Data offers unique opportunity to use the measures to assess Guideline implementation in Wisconsin.
- NCQA uses HEDIS® to accredit HMOs. The use of HEDIS® criteria provides standardized data collection at the population level to assess quality of care.
- The Department of Health and Family Services, Diabetes Prevention and Control Program contracts with the University of Wisconsin-Madison, Department of Population Health Sciences for confidential analysis and reporting of HMO HEDIS® data.
- In 2001 the HMO collaborators represented over 98 percent of the 1.5 million individuals currently enrolled in HMOs in Wisconsin, compared to 84 percent in 2000, and 68 percent in 1999.
- The Project expanded to collect selected cardiovascular measures in 2001.

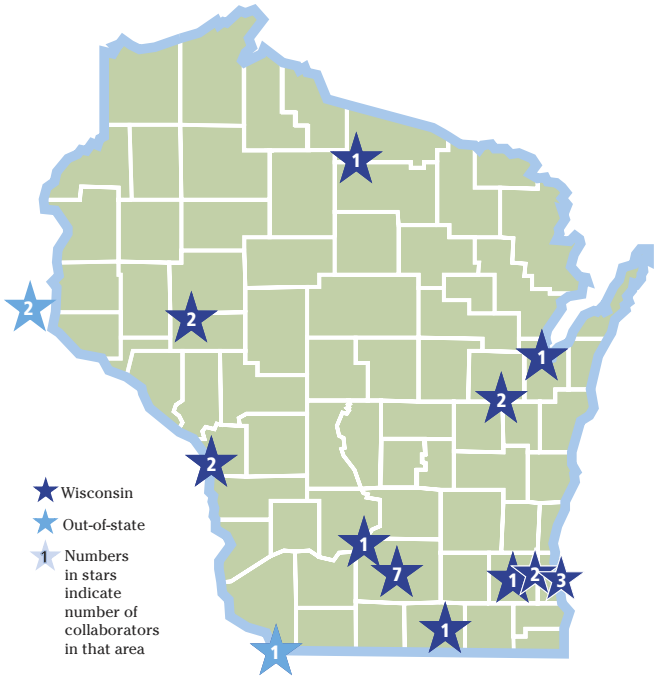


FIGURE 2: Locations of Project Collaborators, Including those Located Outside Wisconsin - 2003

Share resources, population-based strategies and best practices

- The Department of Health and Family Services, Diabetes Prevention and Control Program maintains a system for ongoing communication with the HMOs.
- Partners convene a quarterly forum for HMO quality managers.
- Collaborators discuss issues and strategies (e.g., registry development, data collection issues, provider profiles, quality improvement activities).

Improve diabetes care through collaborative quality improvement initiatives

- Collaborators developed their first statewide quality improvement intervention in 2001. The goals of the Diabetes Eye Care Initiative are to increase exams and improve reporting of results and recommendations.
- Collaborators use joint letterhead to provide united message.

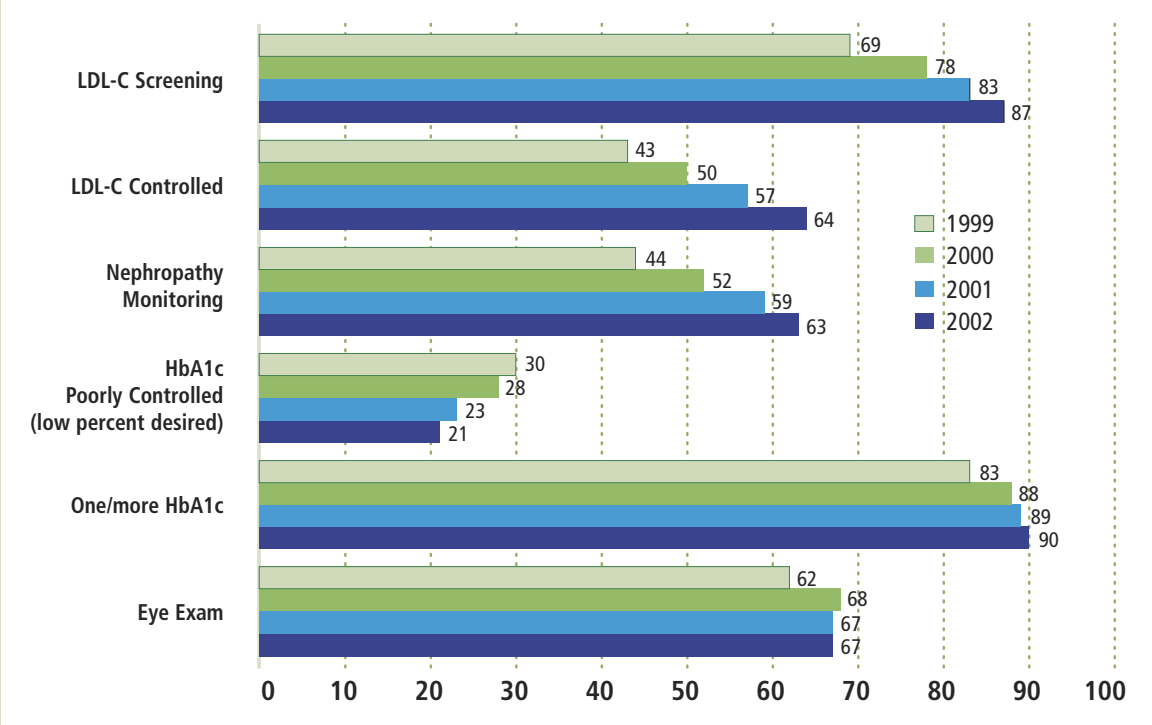
Collaboration is Key
Results

HEDIS® Comprehensive Diabetes Care Measures, 1999-2002

All of the diabetes measures have improved since the Project data collection began in 1999, as shown below. The figure and calculations reflect data submitted by HMOs only.

- LDL-C screening improved by 26% since 1999 (69% to 87%)
- LDL-C controlled (<130 mg/dL) improved by 49% since 1999 (43% to 64%)
- Nephropathy monitoring improved by 43% since 1999 (44% to 63%)
- Poorly controlled HbA1c (>9.5%) improved by 30% since 1999 (a decrease from 30% to 21% demonstrates improvement)
- One/more HbA1c tests improved by 8% since 1999 (83% to 90%)
- Eye exams improved by 8% since 1999 (62% to 67%)

FIGURE 3: Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures (for care provided in 1999-2002)



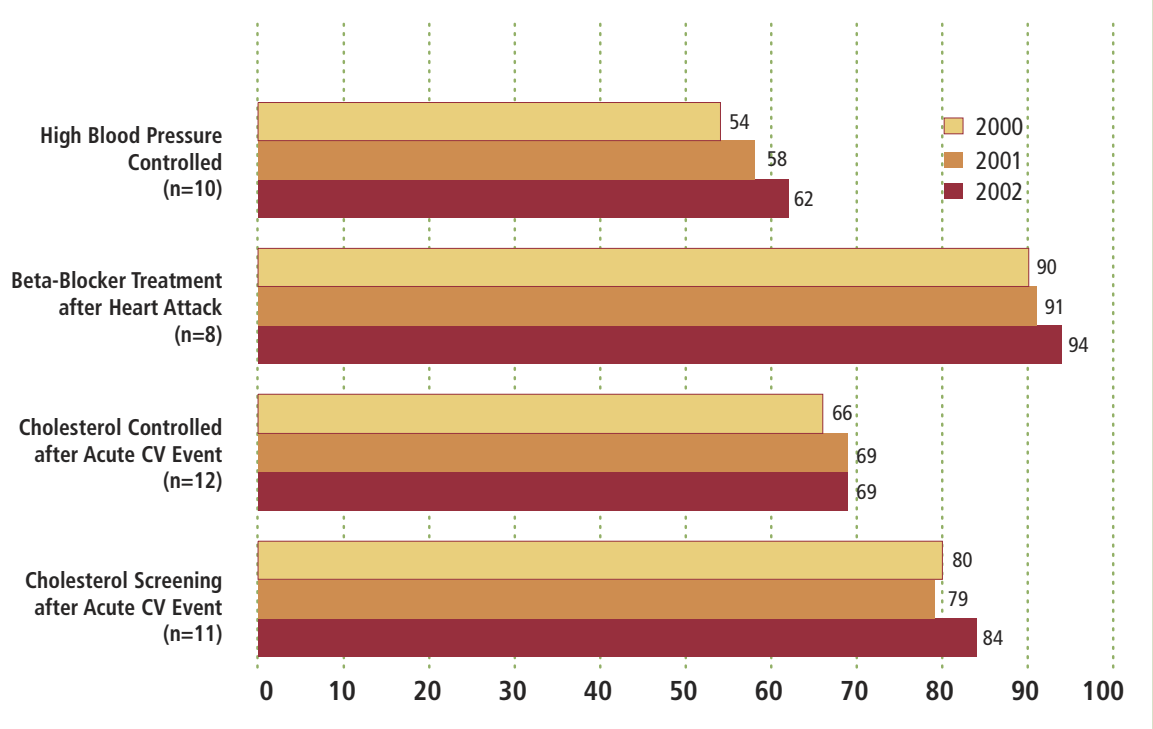
Data reflect only the 15 HMOs that submitted data all four years.

Selected HEDIS® Cardiovascular-related Care Measures, 2000-2002

Results below show there is improvement in all of the cardiovascular-related measures since 2000. The figure and calculations reflect data submitted by HMOs only.

- High blood pressure control improved by 15% since 2000 (54% to 62%)
- Beta-blocker treatment after heart attack improved by 4% since 2000 (90% to 94%)
- Cholesterol controlled (<130 mg/dL) after acute CV event improved by 5% since 2000 (66% to 69%)
- Cholesterol screening after acute CV event improved by 5% since 2000 (80% to 84%)

FIGURE 4: Percent of Patients Receiving Selected HEDIS® Cardiovascular-related Care Measures (for care provided in 2000-2002)



Collaboration is Key

How do we compare?

Comparison of Regional, National, and Project Populations Receiving Selected HEDIS® Measures (for care provided in 2002)

Measure	System with Highest %	System with Lowest %	Wisconsin Avg of Systems	East North Central Regional Avg*	National Avg*
DIABETES					
LDL-C screening	95%	58%	86%	84%	85%
LDL-C controlled	78%	42%	63%	56%	55%
Nephropathy monitored	82%	43%	63%	50%	52%
Poorly controlled HbA1c❖	3%	39%	19%	32%	34%
One/More HbA1c	98%	82%	91%	83%	83%
Eye exam	95%	29%	66%	52%	52%
CARDIOVASCULAR					
Control high blood pressure	71%	40%	61%	59%	58%
Beta-blocker after CV event	100%	75%	95%	96%	94%
Cholesterol controlled	85%	41%	68%	59%	61%
Cholesterol screening	93%	77%	85%	79%	79%

*Source: The State of Health Care Quality 2003: Industry Trends and Analysis, National Committee or Quality Assurance.
❖ Lower percentage desired

All measures were performed on enrollees ages 18-75 years old except the following: beta-blocker treatment after CV event (>35 yrs), controlling high blood pressure (46-85 yrs). Data includes all systems submitting data.

Project Advantages

- Diabetes and cardiovascular care measures continue to improve collectively in Wisconsin.
- Collaborators are using data reports to discuss barriers, problem-solve, and identify potential quality improvement initiatives.
- People with diabetes and cardiovascular disease in Wisconsin benefit from the improvements in care.
- HMOs receive local benchmarking data, reports to share with managers and community stakeholders, and a forum to address mutual concerns and best practices.
- The Diabetes Prevention and Control Program receives valuable data for surveillance and evaluation, as well as vital support toward their mission to improve the health of people at risk for or with diabetes.
- Communication and sharing forums help:
  - Distribute new research and resources
  - Promote dynamic brainstorming and planning
  - Coordinate sharing of quality improvement strategies
- Diabetes registries continue to be utilized by some HMOs.
- Wisconsin's diverse HMOs continue their willingness to collaborate with each other, community partners, and the state health department on quality improvement projects.
- Collaborators remain motivated and committed to the project's success.
- Ongoing collaboration is vital to continue these statewide improvements.

Collaboration is Key
Results

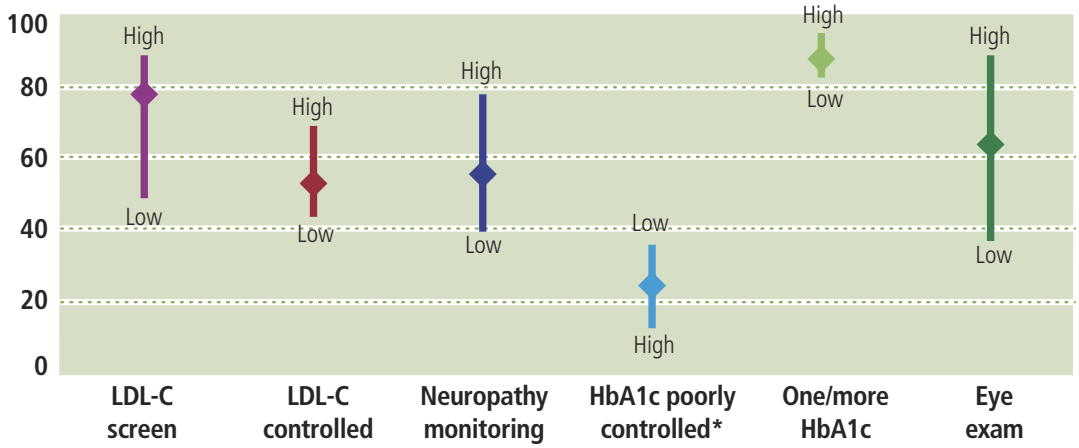
Variation in HEDIS® Comprehensive Diabetes Care Measures by Health System, Four Year Data

One way to evaluate variation among systems is to assess their average rates across time. Reviewing variation helps the Collaborative learn if quality of care is consistent across all systems, or if significant variation in performance is occurring. This review allows collaborators to continue sharing quality initiatives and lessons learned.

To obtain variation information for the Comprehensive Diabetes Care measures, each system's four-year average was calculated for each measure. A four-year overall mean for each measure was calculated using averages from each system. Figure 5 illustrates the range of variation for each measure showing the highest and lowest performing plans over the four years of data collection. The mean percent (all systems) is shown within the high-low range.

- The quality of diabetes care was most consistent for HbA1c testing and HbA1c poorly controlled throughout the four years.
- Wide variations exist in other diabetes care measures. For example, one system had a four-year average of 89% of its enrollees with diabetes receiving eye exams, while another had 37%.
- Most systems improved from 1999 to 2002:
  - 100% (16 out of 16 systems) improved their rates for LDL-C screening and LDL-C controlled.
  - 94% (15 out of 16 systems) improved their HbA1c poorly controlled rates.
  - 88% (14 out of 16 systems) improved their rates for one/more HbA1c.
  - 81% (13 out of 16 systems) improved their nephropathy monitoring rates.
  - 69% (11 out of 16 systems) improved their eye exam rates.

FIGURE 5: Range and Mean (◆) for HEDIS® Comprehensive Diabetes Care Measures for All Systems Submitting Data for Four Years (1999-2002)



* lower percentage desired

The Wisconsin Collaborative Diabetes Quality Improvement Project highlights an extraordinary level of cooperation among diverse, competitive health maintenance organizations to improve diabetes care in Wisconsin. Collaboration is key to this project's successes. This collaborative model may serve as the springboard for the expansion to other statewide quality improvement initiatives.

We would like to recognize the following organizations for their interest and participation in this project: Advanced Health Care, Atrium Health Plan, Inc., CompcareBlue, Dean Health Plan, Inc., Great Lakes Inter-Tribal Council, Inc., Group Health Cooperative of Eau Claire, Group Health Cooperative of South Central Wisconsin, Gundersen Lutheran Health Plan, Health Tradition Health Plan, Humana WHO, Managed Health Services, Medica Health Plan, Medical Associates, MercyCare Insurance Company, Network Health Plan, Physicians Plus Insurance Corporation, Prevea Health Plan, Security Health Plan of Wisconsin, Touchpoint Health Plan, United Healthcare of Wisconsin, Inc., Unity Health Plans Insurance Corporation, Valley Health Plan, State of Wisconsin Employee Trust Funds.

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The Wisconsin Collaborative Diabetes Quality Improvement Project
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Diabetes Prevention and Control Program.

For questions or to obtain a comprehensive summary concerning this project contact:
Wisconsin Department of Health and Family Services
Division of Public Health
http://dhfs.wisconsin.gov/health/diabetes/

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